



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,665	02/13/2004	Robert C. Henderson	10030965-1	5644

7590 02/21/2006

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER
----------

HOPKINS, ROBERT A

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/777,665

Applicant(s)

HENDERSON, ROBERT C.

Examiner

Robert A. Hopkins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10, 12-15, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 7, 11, 16 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8-5-05</u> | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

Claims 12,13,19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 13 recite "the offset". There is a lack of antecedent basis for "the offset" in previous claim limitations. Correction is requested.

Claim 19 recites a preamble indicating an apparatus(a computer readable medium), but recites process limitations within the body of the claim. Therefore, because examiner is unsure of the statutory class of claim presented(apparatus or process), the claim is indefinite, and the claim should be amended to provide for a single statutory class of invention. Claim 20 depends on claim 19 and hence is also rejected.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6,8-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Japanese reference(2001-305118).

Japanese reference teaches a system for sub-ambient pressure control for column head pressure in a gas chromatography system(gas chromatography column 6) comprising an inlet including a valve(2) that regulates an inlet pressure, a pressure sensor(9) that measures the inlet pressure and outputs a signal(P) that indicates a measured inlet pressure, wherein the inlet includes an inlet-pressure set point(preset threshold S) that can be set to a negative pressure set-point representing a pressure below ambient pressure, the negative pressure set-point driving the valve(see dotted line arrow in figure 1 connected to valve(flow control part 2)) to change the inlet pressure until the measured inlet pressure equals the negative pressure set point(abstract lines 6-8 under solution). Examiner notes that adjusting the flow rate using valve 2 is proportional to adjusting the inlet pressure, and the inlet pressure can be deduced by taking the flow rate and calculating pressure through specified expression in arithmetic unit 10. Japanese reference further teaches a mass spectrometer connected to the capillary column Japanese reference further teaches an electronic pressure controller(12) that drives the valve(2) in response to the inlet pressure set-point and the measured inlet pressure. Japanese reference further teaches wherein the pressure sensor is a gauge pressure sensor. Japanese reference further teaches wherein the GC includes instructions on a computer readable medium(comparator 12) for setting the inlet pressure set point to a negative pressure set point, and driving the valve(2) to change the inlet pressure until the measured inlet pressure equals the negative pressure set-point. Japanese reference further teaches wherein the inlet includes an error amplifier that receives the measured inlet pressure

Art Unit: 1724

signal and an inlet-pressure set-point signal and outputs a decreasing drive to the valve when the inlet pressure set point is less than the measured inlet pressure signal.

Japanese reference further teaches wherein the MS includes a vacuum pump(8) connected to the capillary column(6). Japanese reference further teaches wherein the inlet includes a septum purge and a cap on the septum purge . Japanese reference further teaches a computer, connected to the GC including a processor, and a memory that includes instructions executed by the processor for setting the inlet pressure set point to a negative pressure set point, and causing the valve to change the inlet pressure until the measured inlet equals the negative pressure set point.

Claims 14,15, and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Japanese reference(2001-305118).

Japanese reference teaches a method for sub-ambient pressure control head pressure in a gas chromatography system comprising receiving a desired negative pressure set point(preset threshold S) representing a pressure below ambient pressure, and setting an inlet pressure set point to the desired negative pressure set point, wherein the desired negative pressure set point indicates a desired negative inlet pressure for an inlet of the GC. Japanese reference further teaches reading a measured inlet pressure(P), wherein the measured inlet pressure is measured by a gauge pressure sensor(9) in an inlet of the GC(6), comparing(comparator(12)) the measured inlet pressure to the inlet pressure set point, determining if the measured inlet pressure is greater than the inlet pressure set point, if the measured inlet pressure is greater than the inlet pressure set point, decreasing(adjusting; line 7 under solution in

Art Unit: 1724

abstract) the inlet pressure until the inlet pressure is a negative pressure matching the inlet pressure set point. Japanese reference further teaches wherein the decreasing step includes causing a proportional valve(2) in the inlet of the GC to decrease the inlet pressure.

Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Japanese reference(2001-305118).

Japanese reference teaches a computer readable medium(12) comprising instructions for sub-ambient pressure control for column head pressure in a gas chromatography system by receiving a desired negative pressure set point(preset threshold S) representing a pressure below ambient pressure, and setting an inlet pressure set point to the desired negative pressure set point, wherein the desired negative pressure set point indicates a desired negative inlet pressure for an inlet of the GC. Japanese reference further teaches reading a measured inlet pressure(P), wherein the measured inlet pressure is measured by a gauge pressure sensor(9) in an inlet of the GC(6), comparing(comparator(12)) the measured inlet pressure to the inlet pressure set point, determining if the measured inlet pressure is greater than the inlet pressure set point, if the measured inlet pressure is greater than the inlet pressure set point, decreasing(curtail; line 7 under solution in abstract) the inlet pressure until the inlet pressure is a negative pressure matching the inlet pressure set point.

***Allowable Subject Matter***

Claims 7,11,16,18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 7 recites “wherein the error amplifier outputs an increasing drive to the valve that causes the valve to increase the inlet pressure”. Japanese reference only teaches outputting a decreasing drive to the valve. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide an error amplifier which outputs an increasing drive to the valve that causes the valve to increase the inlet pressure because Japanese reference does not suggest such a modification.

Claim 11 recites “wherein the gauge pressure sensor includes an offset(v0) so that a measured inlet pressure of zero(0psig) causes the gauge pressure sensor to output a positive measured inlet pressure voltage”. Japanese reference teaches a gauge pressure sensor, but does not teach wherein the sensor includes an offset. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide an offset because Japanese reference does not suggest such a modification.

Claim 16 recites “if the measured inlet pressure is less than the inlet pressure set point, increasing the inlet pressure until the inlet pressure is a negative pressure matching the inlet pressure set-point”. Japanese reference only teaches decreasing the inlet pressure. It would not have been obvious to someone of ordinary skill in the art

Art Unit: 1724

at the time of the invention to provide a step of if the measured inlet pressure is less than the inlet pressure set point, increasing the inlet pressure until the inlet pressure is a negative pressure matching the inlet pressure set-point because Japanese reference does not suggest such a modification.

Claim 18 recites "setting a gauge pressure sensor offset(v0) so that a measured inlet pressure of zero(0psig) causes a gauge pressure sensor to output a positive measured inlet pressure". Japanese reference teaches a gauge pressure sensor, but does not teach wherein the sensor includes an offset. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of setting a gauge pressure sensor offset(v0) so that a measured inlet pressure of zero(0psig) causes a gauge pressure sensor to output a positive measured inlet pressure because Japanese reference does not suggest such a modification.

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Applicant is advised that should claim 14 be found allowable, claim 19 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both



Art Unit: 1724


cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Examiner notes claims 14 and 19 include the same limitations within the body of the claim and therefore no patentable distinction exists between claims 14 and 19.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Friday, 7am-4pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rah  
February 17, 2006

  
ROBERT A. HOPKINS  
PRIMARY EXAMINER  
A.U. 1724